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January 21, 2013

Mercedes Porcari  
Exoticscape, Inc.  
181 Harbor Drive  
Key Biscayne, FL 33149

Dear Mrs. Porcari:

I visited several areas in Key Biscayne with you last week to inspect Gumbo Limbo trees. This letter is to inform you of my observations and recommendations.

The main concern is the heavy infestation of Gumbo Limbo trees by the Rugose Spiraling Whitefly. Trees belonging to the Village of Key Biscayne were treated for the Spiraling Whitefly last year by a trunk injection of the chemical imidacloprid using the Arborjet injection system. This system has proven to be the most effective way to control Spiraling Whitefly infestations on most landscape trees.

The one exception to the effectiveness of the Arborjet system is the Gumbo Limbo tree. Arborjet trunk injections have been providing up to a year of control on trees and palms other than Gumbo Limbo. The Gumbo Limbo tree is one of the most favored hosts for the Rugose Spiraling Whitefly and for whatever reason, insecticide treatments do not last as long on Gumbo Limbo trees as they do for other plants.

Pest control operators I work with have reported to me that they are treating Gumbo Limbo trees every 4 months to successfully control Spiraling Whiteflies. They are using root drenches with an imidacloprid insecticide or basal trunk sprays with Safari insecticide which has dinotefuran as the active ingredient. Wetting agents and nitrogen fertilizer are being added to the pesticide mixture.

The Arborjet system involves drilling holes every few inches in the outer layers of the tree and inserting a plastic plug through which the IMA-jet chemical is injected into the tree. This program is not feasible if the tree has to be re-treated every 4 months. There would be too many holes in the tree.

The basal stem treatment using Safari insecticide is the easiest control method from an application standpoint. A concentrated amount of the insecticide plus wetting agent is placed in a small amount of water in a backpack- type sprayer and the trunk of the target tree is wet down with low pressure from about head high down to the root flare at the soil surface. The insecticide quickly moves through the bark and into the tree's vascular system. Safari is more expensive than imidacloprid insecticides but the ease of application saves on labor costs. A 24 inch diameter tree only needs a half gallon of concentrated spray which should only take about a minute to apply.

Gumbo Limbo trees can be successfully treated for Rugose Spiraling Whiteflies in urban situations with soil drenches or trunk sprays. Gumbo Limbo trees will have to be treated every 4 months to control the Spiraling Whiteflies instead of once or twice a year. I would recommend using one of the other treatment methods other than the Arborjet system. The Arborjet system does not last any longer than other treatment methods on Gumbo Limbos and has the added

disadvantage of small holes being drilled into the trees. The Arborjet system is superior to other treatment systems on larger palms like coconuts because only one hole is drilled and the treatment lasts for a year.

Whitefly infestations have occurred in other states like California which saw an infestation of Ash Whiteflies which produced large amounts of honeydew and sooty mold similar to the effects of the Spiraling Whitefly. **The good news is that the infestation died off in about 5 years as predator insects started feeding on the Ash Whiteflies and that insect is no longer a problem in the landscape.** Hopefully the Rugose Spiraling Whitefly will follow the same pattern and it will not be a significant problem in a few more years.

It seems likely that landscape trees susceptible to Spiraling Whiteflies will have to be treated on a regular basis to prevent them from becoming infested with this nuisance insect for the next few years. We do have treatment options that will work well to control this insect but the treatment program must be modified for Gumbo Limbo trees to achieve adequate control. I hope the Village of Key Biscayne makes an effort to modify their treatment program for Spiraling Whitefly on Gumbo Limbo trees before they resort to more severe actions for dealing with this terrible nuisance.

I hope you find this information useful and please contact me if you have any questions or concerns.

Sincerely,

Richard Murray